

1665

Family Caracanthidae

The Velvety Sculpins

Body - deeply ovoid, compressed.  
Head <sup>large</sup> ~~small~~, - deep, front upper  
profile abrupt. Snout blunt.  
Eye small. Mouth small, with  
short gape. Teeth minute, in  
jaws. Nostrils as pair each  
side of snout. Interorbital  
and top of head convex.  
Gill openings rather large.  
Branchiostegals 5. Skin naked  
or covered with short, minute  
papillae or prickles. No scales.  
Several bones on head strongly  
armed. Lateral line present.  
Fins all more or less feeble,  
verticals low or short. Dorsals  
separate or continuous. Pectoral



- 306, fig. 3; vol. 8, 1876-77, p. 22 (Sumatra, Bali, Timor, Ternate, Buru, Amboina). — Jordan and Richardson, Bull. Bur. Fisher., vol. 27, 1907 (1908), p. 259 (Calayan). — Beaufort, Bijdragen Dierk. Amsterdam, pt. 19, 1913, No. 9, p. 122 (Amboina). Plectorhynchus orientalis Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 207 (compiled). Lutjanus aurantius Lacépède, Hist. Nat. Poiss., vol. 4, 1802, pp. 193, 239, Japan. Diagramma pica Cuvier, Hist. Nat. Poiss., vol. 5, 1830, p. 297, pl. 124, Tahiti. — Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 326 (compiled). — Peters, Monatsb. Akad. Wiss. Berlin, 1876, p. 437 (Mauritius). Diagramma sibbaldi Bennett, Proc. Linn. Zool. Soc. London, vol. 2, 1832, p. 182, Ceylon. Diagramma plicoides Peters, Monatsb. Akad. Wiss. Berlin, 1866, p. 94. No locality. — Day, Fishes of India, pt. 1, 1875, p. 83 (copied); Fauna British India, vol. 1, 1889, p. 519.

with deep base, rays simple.  
Ventrals very small or  
rudimentary.

Small fishes related to  
the Scorpaenidae but differing  
chiefly in their compressed  
body, feeble fins and  
velvety skin.



and 4 more on latter; 10 scales above lateral line, 16 below, 37 predorsal forward above nostrils, 16 rows on cheeks. Suprascapula denticulate. Scales with 5 to 9 basal radiating striae; apical denticles 37 to 51, slender points, with 3 to 7 transverse series of basal elements; circuli very fine.

D. XIII or XIV, 16, I to 18, I, fourth spine  $1\frac{1}{2}$  to  $2\frac{3}{4}$  in total head length, ninth ray  $1\frac{4}{5}$  to  $2\frac{1}{8}$ ; A. III, 7, I, second spine  $1\frac{3}{5}$  to  $2\frac{4}{5}$ , fourth ray  $1\frac{2}{3}$  to 2; caudal  $1\frac{1}{4}$  to  $1\frac{3}{5}$ , truncate, rounded as least depth of caudal peduncle  $2\frac{4}{5}$  to  $3\frac{1}{8}$ ; expanded; pectoral  $1\frac{2}{5}$  to  $1\frac{3}{4}$ ; ventral  $1\frac{1}{4}$  to  $1\frac{1}{2}$ .

Largely uniform brown, but little paler on lower sides. Vertical fins and ventrals all more or less with dusky. Pectoral pale. Iris light yellowish in young.

Genus Caracanthus Kröyer

The Velvety Sculpins

Caracanthus Kröyer, Naturhist.

Tidskr., Kjöbenhavn, vol. 1, p.

267, 1844. (Type Caracanthus  
typicus Kröyer, monotypic.)

micropus (not Wolf 1816 in birds)

Gray, Zool. Miscellany, p. 20, 1831.

(Type micropus maculatus Gray,  
monotypic.)

Amphiprionichthys Bleeker, Nat.

Tijds. Ned. Indië, vol. 8, p. 170, 1855.

(Type Amphiprionichthys apistus  
Bleeker, monotypic.)



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Depth  $2\frac{1}{8}$  to  $2\frac{3}{5}$ ; head  $2\frac{3}{4}$  to  $2\frac{4}{5}$ , width  $1\frac{7}{8}$  to  $2\frac{1}{4}$ . Snout  $2\frac{1}{8}$  to  $3\frac{1}{8}$  in head; eye  $3\frac{2}{5}$  to  $5\frac{3}{4}$ ,  $1\frac{1}{8}$  to  $2\frac{1}{2}$  in snout, greater than interorbital in young to  $1\frac{1}{2}$  with age; maxillary reaches to eye in young or little beyond front eye edge with age, expansion  $1\frac{1}{5}$  to  $2$  in eye, length  $3$  to  $3\frac{1}{3}$  in head; small slit each side of snout front; lips large, thick, fleshy, very conspicuous and posteriorly extend well beyond maxillary or about  $\frac{2}{5}$  of eye; narrow band of rather small fine teeth in each jaw; palate and tongue toothless; interorbital  $4\frac{1}{8}$  to  $4\frac{1}{2}$ , convex; preopercle edge with 25 small denticles. Gill rakers  $9+20$ , which  $\frac{2}{5}$  of gill filaments, latter  $\frac{2}{3}$  of eye.

Scales 50 to 55 in lateral line to caudal base and 3 to 9 more on latter; tubular scales 49 or 50 in lateral line.

Centropus, Kner, Sitzb. Ber. Akad.  
Wiss. Wien, math.-naturw. Kl.,  
vol. 39, p. 3, 1860. (Type  
Centropus staurophorus Kner,  
monotypic.)

Crossoerma Guichenot, nouv.  
Arch. Mus., Paris, vol. 5, p. 194,  
1870. (Type Crossoerma  
madagascariensis Guichenot,  
monotypic.)



Españ. Hist. Nat. Madrid, vol. 14, 1885,  
p. 14 (Manado, Celebes). — Gorgoza, Anales  
Soc. Españ. Hist. Nat. Madrid, vol. 17, 1888,  
p. 284 (Manila Bay). — Sauvage, Hist. Nat.  
Madagascar, Poiss., 1891, p. 168 (Amboina).  
— Muncker, Mitteil. Naturh. Mus. Hamburg,  
vol. 21, 1903 (1904), p. 149 (Changi, North East  
Singapore).

Plectrokinchus affinis Fowler, Journ. Acad.  
Nat. Sci. Philadelphia, series 2, vol. 12, 1904,  
p. 527 (Padang).

Diagramma ulia Day, Proc. Zool. Soc.  
London, 1869, p. 514. no locality; Alkyab.

Diagramma crassilabre Alleyne and Macleay,  
Proc. Linn. Soc. New South Wales, vol. 1, 1877, p.  
271, pl. 5, fig. 5. Hall Sound, New Guinea. —  
Kent, Great Barrier Reef, 1893, p. 367 (Queensland).

Diagramma unicolor Macleay, Proc. Linn. Soc.  
New South Wales, vol. 8, 1883, p. 261. China  
straits, New Guinea.



1669

Body well compressed, with small caudal peduncle. Head well compressed, snout declivous. Eye high, at first third in head. Mouth broad, low, jaws equal or lower slightly protruded. Lips thick, fleshy. Teeth fine, villiform, in bands in jaws, none on palate. Preorbital with large spine directed down. Preopercle with 5 broad, short, spines. Opercle with 2 spines and one on interopercle. Skin with very numerous minute papillae or prickles. Lateral line complete, little arched in front and axial on side of body. Dorsals separate or united, first fin little shorter, spines 7 or 8. Anal like second

dorsal, preceded by 2 low  
 spines. Caudal small. Pectoral  
 in lower half of body depth.  
 Very small ventral below  
 pectoral, with short, low, strong  
 spine.

Several species in the  
 Indo Pacific, living mostly  
 about coral rocks and reefs.

### Analysis of Species

a<sup>1</sup> Two distinct dorsals, not  
 completely separated.

maculatus.

a<sup>2</sup> A single continuous dorsal.

zeylonicus.



Caracanthus maculatus (Gray)<sup>1671</sup>

Micropus maculatus Gray, Zool.  
Miscellany, p. 20, 1831 (Type  
locality, Hao Island, Paumotu).  
— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 147, 1860 (type); Journ.  
Mus. Godeffroy, vols. 2-3, pts.  
5-6, p. 86, 1874 (Hawaiian  
Islands; Tahiti).

— Schmeltz, Cat. Mus. Godeffroy,  
no. 7, p. 43, 1879 (Tahiti). —  
Pöhl, Cat. Mus. Godeffroy, no. 10,  
p. 30, 1884 (Tahiti).

— Seale and Bean, Proc. U. S. Nat. Mus., vol. 33, 1908, p. 244 (Zambounga).  
Diagramma gibbosus Hambron and Jacquinet, Voy. Astrolabe et Zélée, Zool., vol. 3, 1853, p. 46, pl. 5, fig. 2. Samoa. — Günther, Journ. Mus. Godeffroy, vols. 2-3, pts. 5-6, 1874, p. 26 (Samoa).  
Diagramma affine Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 319. North West Australia, Moluccas, Amboina, Malacca, China. —  
Playfair, Fishes of Zanzibar, 1866, p. 26 (Zanzibar).  
— Schmeltz, Cat. Mus. Godeffroy, no. 6, 1866, p. 7 (Samoa). — Günther, Cruise of Curacao, Breckley, 1873, p. 410 (Misol, Moluccas). —  
Martens, Preuss. Exped. Ost Asien, 1876, p. 386 (Singapore). — Klunzinger, Sitzb. Ber. Akad. Wiss. Wien, vol. 70, pt. 1, 1879, p. 351  
— Schmeltz, Cat. Mus. Godeffroy, no. 7, 1879, p. 57 (Samoa).  
(Queensland). — Macleay, Proc. Linn. Soc. New South Wales, vol. 8, 1883, p. 202 (Lower Burdekin River). — Meyer, Anal. Soc.



Caracanthus maculatus Fowler, <sup>1672</sup>  
Proc. Acad. Nat. Sci. Philadelphia,  
p. 515, pl. 20, fig. 5, <sup>1900</sup> (Honolulu), p.  
522 (Tahiti). — Jenkins, Bull.  
U. S. Fish Comm., vol. 22, p. 491,  
1902 (1903) (Honolulu). — Jordan  
and Evermann, Bull. U. S. Fish  
Comm., vol. 23, pt. 1, p. 453, fig. 198,  
1903 (1905) (Honolulu; Waikiki). —  
Jordan and Seale, Bull. Bur.  
Fisher., vol. 25, p. 380, 1905 (Samoa).  
— Kendall and Goldsbrough,  
Mem. Mus. Comp. Zool., vol. 26, p.  
316, 1911 (Rangiroa, Paumotu).  
— Fowler, Copeia, no. 112, p. 84,  
nov. 20, 1922 (Hawaii). — Jordan  
and Jordan, Mem. Carnegie Mus.,  
vol. 10, no. 1, p. 54, 1922 (Hawaii).

vol. 57, Fische, 1913, p. 279 (Kanglang; Saleyer).

Plectorhynchus crassispina Bleeker, Atlas Ichth. Ind. Néerl., vol. 8, 1876-77, p. 15, pl. (64) 347, fig. 4 (Sumatra, Batu, Pinang, Singapore, Banka, Borneo, Java, Celebes, Ternate, Obi Major, Amboina, Goram, Waigiu, Luzon). — Steindachner, Denks. Akad. Wiss. Wien, Math. Naturw. Klasse, vol. 71, pt. 1, 1907, p. 132 (Makalla; Vokotra).

Plectorhynchus crassispinus Evermann and Seale, Proc. U. S. Nat. Mus., vol. 31, 1906, p. 508 (Manila). — Barnard, Annals South African Mus., vol. 21, pt. 2, October 1927, p. 673 (Natal; Zululand).

Plectorhynchus crassispinus Fowler, Mem. Bishop Mus., vol. 10, 1928, p. 205 (compiled).

Enelatichthys crassispinus Jordan and Seale, Bull. Bur. Fisher., vol. 25, 1905 (1906), p. 268 (Apia); vol. 26, 1906 (1907), p. 22 (Cavite).



1673

— Fowler, Bull. Bishop Mus., no. 22, p. 27, 1925 (Honolulu, p. 37 Tahiti). — Fowler and Ball, Bull. Bishop Mus., no. 26, p. 20, 1925 (Pearl and Hermes Reef; Ocean Island). — Fowler, Bull. Bishop Mus., no. 38, p. 21, 1927 (Palmyra, Washington, Christmas, Howland, Lahu Islands); Mem. Bishop Mus., vol. 10, (1928, p. 298, (Fiji, Tahiti, Hawaii, Waikiki, Honolulu, Rangiroa, Palmyra, Pearl and Hermes Reef, Ocean Island, Maui, Society Islands, Ebon Island). — Jordan, Journ. Pan Pac. Res. Inst., vol. 2, no. 4, p. 10, Oct. - Dec. 1927 (Samoa).

Plectorhinchus nigrus (Cuvier)

Pristipoma nigrum (Mertens) Cuvier, Hist. nat. Poiss., vol. 5, 1830, p. 258. Manila. — Cantor, Journ. Asiatic Soc. Bengal, vol. 18, pt. 2, 1849, p. 1056 (Sea of Pinang). — Günther, Cat. Fishes Brit. Mus., vol. 1, 1859, p. 289 (copied).

Diagramma nigrum Day, Proc. Zool. Soc. London, 1865, p. 14 (Cochin); Fishes of Malabar, 1865, p. 23; Proc. Zool. Soc. London, 1870, p. 683 (Andamans).

Diagramma leucurum Valenciennes, Hist. nat. Poiss., vol. 9, 1833, p. 488. Seychelles. — Pellegrin, Bull. Soc. Zool. France, vol. 39, 1914, p. 225 (Fort Dauphin, Madagascar).

Pseudopristipoma leucurum Vauvaye, ~~Bull. Mus. Phil. math. Phys. Hist. Nat.~~ Hist. nat. Madagascar, Poiss., 1891, p. 161, pl. 32, fig. 1 (type; Madagascar).



— Borodin, Bull. Vanderbilt  
Marine Mus., vol. 1, art. 2, p. 59,  
1930 (Oahu). — Fowler, op. cit.,  
vol. 11, no. 5, p. 349, 1931 (Honolulu).  
— Ginsberg, Bull. Bishop Mus.,  
no. 107, p. 20, 1933 (Pearl and  
Hermes Reef). — Fowler, Mem.  
Bishop Mus., vol. 11, no. 6, p. 431, 1934  
(Lanai Island, Engineer Group).

Caracanthus typicus Kröyer, naturh.  
Tidskrift., København, n. s.,  
vol. 1, pp. 264, 267, 1844 (type  
locality, Oahu).



or buff. Fins all pale or very light brownish, edges of dorsals, anals and caudal posteriorly dusky. Pectoral uniformly pale yellowish brown. Ventral whitish, membranes finely spotted or dotted with dusky to blackish, spots becoming larger and deeper on inner membranes, so usually large black blotch on innermost membrane terminally nearly large as pupil.

East Indies, Philippines, Formosa, China, Japan. A handsome species, reaching 225 mm. according to Boulenger. The dark spots on the white ventral fins are diagnostic. The young quite different from the adult in general appearance, with the entire spinous dorsal and ventrals dusky, though always with 1 or 2 black blotches

Amphiprionichthys apestus

Bleeker, Nat. Tijds. Ned. Indie,  
vol. 8, p. (168) 173, 1855 (type  
locality, Cocos Islands); vol.  
11, p. 385, 1856 (Kajeli, Borneo).

— Günther, Cat. Fish. Brit. Mus.,  
vol. 2, p. 44, 1860 (copied).

— Kner, Sitzs. Ber. Akad. Wiss.  
Wien, math.-naturw. Kl., vol. 57,  
pt. 1, p. 309, pl. 3, fig. 8, 1868

(Kandavu, Fiji). — Schmeltz, Cat.  
Mus. Godeffroy, no. 4, p. 16, 1869  
(Viti Islands).

; Act. Soc. Sci. Ind. Neerl., no. 2, vol. 6,  
p. 4, 1859 (Doreh, New Guinea).



a.<sup>3</sup> Diagramma. Scales 122 to 125 in lateral line; body brown, young with 7 broad longitudinal black bands, breaking into spots over head, body, dorsal and anal with age; paired fins and anal immaculate.

pictus

Micropus apistus Bleeker, ~~Verh.~~  
~~Kon. Akad. Wet. Amsterdam~~, ~~vol.~~  
~~Ned. Tijds. Dierk.~~, vol. 2,  
 p. 148, 1865 (Bouro).

— Weber, Noboga Exped., vol. 65,  
 Fische, p. 488, 1913 (Borneo Bank;  
 Celebes Sea; Celebes; Karakelang;  
 Ambonia).

Caracanthus apistus Bleeker, Verh.  
 Kon. Akad. Wet. Amsterdam, vol. 16,  
 no. 2, p. 96, pl. 5, fig. 4, 1876 (Cocos  
 Islands; Buru; Ceram); Atlas  
 Ichth. Ind. Néerl., vol. 5, pl. (6) 416,  
 fig. 5, 1877.



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vertical fins. gaterinus  
j.<sup>2</sup> Spots, when present extend  
on head.

k.<sup>1</sup> Lips moderately fleshy; paired  
fins never spotted.

l.<sup>1</sup> Body uniform gray or with  
golden spots, often more or  
less connected spots and streaks  
on head, body and fins,  
body sometimes with lighter  
cross bars; fins more or less  
blackish.

schotaf

l.<sup>2</sup> Body uniform gray; fins  
more or less blackish. chubbi

k.<sup>2</sup> Lips broad, fleshy; young brown  
with several large white round  
blotches, brown areas with dark  
spots, extend over entire upper  
body and vertical fins with  
age, not on throat or belly.  
chaetodonoides

Crossoderma madagascariensis  
Guichenot, Nouv. Arch. Mus.  
 Hist. Nat., Paris, vol. 5, p.  
 195, pl. 12, fig. 1, 1869 (type  
 locality, Madagascar).

Caracanthus madagascariensis  
Bleeker, Rech. Faune Madagascar,  
 pt. 4, p. 87, 1874 (reference). —  
Sauvage, Hist. Nat. Madagascar,  
 Poiss., p. 303, pl. 35, fig. 8, 1891  
 (Tulleur, west coast of  
 Madagascar).



Goniistius zonatus (Cuvier)

~~Cheilodactylus zonatus Cuvier, Hist.  
nat. Poiss., vol. 5, p. 365, pl. 129,  
1830 (type locality, "mers du  
Japon").~~

Depth  $1\frac{4}{5}$  to  $1\frac{7}{8}$ ; head  $2\frac{1}{4}$  to  $2\frac{2}{3}$ , width 2 to  $2\frac{1}{2}$ . Snout  $3\frac{1}{6}$  to  $3\frac{1}{4}$  in head, <sup>from snout tip</sup> eye  $3\frac{7}{8}$  to 5, 1 to  $1\frac{1}{4}$  in snout, greater than interorbital; maxillary reaches opposite hind eye edge, expansion  $1\frac{1}{3}$  to  $1\frac{1}{2}$  in eye, length  $1\frac{7}{8}$  to  $2\frac{1}{3}$ ; teeth in villiform band in each jaw; interorbital  $6\frac{3}{4}$  to 7, low, little convex. Gill rakers 4 + 13, lanceolate,  $\frac{3}{4}$  of gill filaments, which  $1\frac{2}{5}$  in eye.

Lateral line with 23 to 25 pores in its course to caudal base. Prickles on predorsal and front of back finer and more close set than others.

D. VIII, 12 or 13, third spine  $3\frac{1}{3}$  to  $3\frac{2}{5}$  in total head length, fourth ray  $2\frac{3}{5}$  to  $2\frac{3}{4}$ ; A. II, 11 or



on the innermost ventral membranes.  
They also have a long opercular  
spine and a truncate caudal fin.

1680

12, spines very short, fin height  $5\frac{1}{4}$  to  $5\frac{1}{2}$ ; caudal  $1\frac{7}{8}$  to 2, convex behind; least depth of caudal peduncle 3; pectoral  $1\frac{4}{5}$  to  $1\frac{7}{8}$ , rays 13 to 15; ventral rays I, 5, fin very small.

Brown, more or less uniform. In alcohol top of head and back with darker spots.



1681  
U. S. N. M., no. 82764, Fiji.  
Wilkes Exploring Expedition.  
Length 47 to 55 mm. Two  
examples.

U. S. N. M., no. 82958, Tahiti.  
Wilkes Exploring Expedition.  
Length 28 to 38 mm. Three  
examples.

1682

Caracanthus unipinna (Gray)

- Micropus unipinna Gray, Zool. Miscellany, p. 20, 1831 (type locality, Pacific Sea). —
- Günther, Cat. Fish. Brit. Mus., vol. 2, p. 147, 1860 (type); Journ. Mus. Godeffroy, vols. 2-3, pts. 5-6, p. 86, 1874 (Hawaii, Tahiti, Savau, Pelew Islands). —
- Peters, Monatsb. Akad. Wiss. Berlin, p. 439, 1876 (Seychelles). —
- Schmeltz, Cat. Mus. Godeffroy, no. 6, p. 13, 1877 (Tahiti); no. 7, p. 43, 1879 (Bonham Islands). —
- Föll, Cat. Mus. Godeffroy, no. 10, p. 30, 1884 (Viti); — Steindachner, Abhand. Kon. Senckenberg. Gesell., vol. 25, p. 424, 1900 (Ternate). —
- Alecock, Journ. Asiatic Soc. Bengal, vol. 65, pt. 2, p. 313, 1896 (reference).  
Andamans



(Peters, Monatsh. Akad. Wiss. Berlin, p. 439, 1876 (Seychelles).<sup>1883</sup>)

Caracanthus unipinna Jordan and  
Evermann, Bull. U. S. Fish Comm.,

vol. 23, pt. 1, p. 454, 1903 (1905)

(Makemo). — Regan, Proc. Zool.

Soc. London, pt. 1, p. 404, 1909

(Christmas Island, Indian

Ocean). — Fowler and Ball, Bull.

Bishop Mus., no. 26, p. 20, 1925

(Wake Island). — Fowler, Mem.

Bishop Mus., vol. 10, p. 299, 1928

(Palmyra, Wake Island, Laysan,

Makemo); vol. 11, no. 5, p. 352, 1931

(reference); vol. 11, no. 6, p. 431, 1934

(types of Trachycephalus banksii;

Banks Group; New Hebrides;

Pelew Islands; Tupusaki near

Port Moresby, New Guinea).

— Fowler and Bean, Proc. U. S. Nat. Mus.,

vol. 71, art. 10, p. 9, 1927 (Pelew

Island, Indian Ocean).



Caracanthus (Amphiprionichthys)  
unipinna Whitley, Jour. Pan. Pac.  
Res. Inst., vol. 3, no. 1, p. 12, Jan.-  
March 1928 (Santa Cruz Islands).

Amphiprionichthys unipinna Jordan  
and Seale, Bull. Bur. Fisher.,  
vol. 25, p. 380, 1905 (reference). —  
Kendall and Goldsbrough, Mem.  
Mus. Comp. Zool., vol. 26, p. 316, 1911  
(Makemo).



Micropus zeylonicus Day, Fishes  
of India, pt. 1, p. 158, pl. 38, fig. 6,  
1875 (Malabar; Galle Harbor);  
Fauna of British India, Fishes,  
vol. 2, p. 69, fig. 28, 1889 (copied).  
— Borodin, Bull. Vanderbilt  
Mar. Mus., vol. 1, art. 3, p. 91, 1932  
(Raiatea; Venus Point Reef,  
Tahiti).

Caracanthus zeylonicus J. L. B.  
Smith, Rec. Albany Mus., Graham-  
Town, vol. 4, p. 157, 1931.

Centropomus staurophorus Kner, <sup>1686</sup> Vitz:  
Ber. Akad. Wiss. Wien, Math.-naturw.  
Kl., vol. 39, p. 531, pl. fig. 1, 1860.  
(type locality, Zanzibar).

Amphiprionichthys villosus Schmeltz,  
Cat. Mus. Godeffroy, no. 4, p. 16, 1869  
(type locality, Kandavu) (name  
only).

Amphiprionichthys zeylonicus  
Day, Proc. Zool. Soc. London, p.  
515, 1869 (type locality, off  
Galle, Ceylon).



vases or clearing into spots below.

i. Six or 7 brown to black longitudinal bands, even, parallel; vertical fins dark marginally, also with large dark spots; dark bar across pectoral base.

digrammus

i. Seven or 8 black longitudinal bands, with third to fifth with several connecting pale lines or bars; dorsal edges dusky and dark spots all along fins basally; caudal with dark oblique bars on each half; pectoral with dark basal spot.

radia

b. Body without dark or black longitudinal bands in adult, sometimes present in young, giving place to spots with age.

j. Head immaculate; young white, with 6 or 7 black longitudinal bands, with age forming irregular large blotches on back and

Trachycephalus bankiensis De Vis<sup>1687</sup>,  
Proc. Linn. Soc. New South Wales, vol.  
8, p. 456, 1883 (type locality, Bank's  
Group).

Caracanthus maculatus (not Gray)  
Fowler, Mem. Bishop Mus., vol. 10,  
p. 298, 1928 (part).



h.<sup>2</sup> nine black longitudinal bands,  
 become oblique with age, while  
 lower portions break as spots and  
 upper bars slope upon dorsal  
 basally; upper dorsal edge dark;  
 all vertical fins with numerous  
 round black spots. goldmanni  
 g.<sup>2</sup> Pectoral with large black blotch  
 medially; 6 black longitudinal bands,  
 upper broader than pale interspaces  
 and uppermost on soft dorsal base;

(Amotaka). - Alcyon and maxima,  
 Great Linn. Vic. New York Water, vol. 1,  
 1876, p. 339 (Bamble Bay). - Smith,  
Chlor. Trans. Roy. Soc. London, vol. 168,  
 1879, p. 470 (Rodrigues). - Klunzinger,  
Fische. Rik. Meer, 1884, p. 86. - Day,  
Fauna. Brit. India, vol. 2, 1889, p. 147.  
 - Vendace, Alcyon, Vendace.  
Stoll, Fund. 25, 1900, p. 427 (female).  
 (Following Smith and Day).

Depth  $1\frac{4}{5}$ ; head 3;  $\overline{\text{D. VII}}$ , 12;  
 $\overline{\text{A. II}}$ , 11. Preopercular spines  
small, limb rounded. Dorsals  
united or continuous, only very  
slight depression at their union.  
Uniform dark brown.

Zanzibar, India, Ceylon,  
East Indies, Melanesia,  
Micronesia, Polynesia, Hawaii.